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## REMARKS-General

In order to more clearly define the invention and place this application in clear condition for allowance, applicant has rewritten the claims of record 9-28 as new claims 29-48. All technical rejections are now submitted to be overcome.

### The Rejection of Claims 9-13 and 19-23 on Kamen Under § 102

Claims 9-13 and 19-23 were rejected under § 102 as being anticipated by Kamen et al. (Kamen-Pub. P.A. 2001/0032743). To more clearly define the invention applicant has rewritten these claims as new claims 29, 30, 37, 38, 41 and 42 as follows:

Independent claims 9 and 19 have been rewritten into three new independent claims 29, 37 and 41. Claim 29 is the main independent claim for the preferred embodiment. Claim 37 covers a fixed seat embodiment of the invention and claim 41 is an alternatively worded claim covering the preferred embodiment.

The subject matter of dependent claims 10 and 20 has been incorporated into new dependent claims 30, 38, 42. These pertain to the reversal of the vehicle's rolling direction.

Dependent claims 11 and 21 recited the size and shape required of the riding platform to support multiple riding positions. These claims have been incorporated into two of the new independent claims 29 and 41.

Dependent claims 12 and 22 recited the absence of protruding features required for multiple riding positions. These claims were also incorporated into the two new independent claims 29 and 41.

Dependent claims 13 and 23 discuss a seat for the rider support. These claims has been incorporated into new independent claim 37.

In these new claims, language has been added or changed to more clearly and distinctly define the invention. These new claims all clearly recite novel physical features over Kamen. Applicant submits that such features make all claims patentable over Kamen for the following reasons:

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## APPLICANT'S INVENTION

Applicant's invention is for a stably supported, weight-controlled, motorized vehicle similar to a skateboard. In the preferred embodiment, applicant's vehicle can be operated without use of the rider's hands and at the rider's choosing, in the standing, sitting, or kneeling riding position.

The rider steers applicant's vehicle like a skateboard, by tilting the supporting platform or rider support from side-to-side. The rolling speed of applicant's vehicle is controlled by tilting the rider support in a forward and backward direction. To increase the forward rolling speed, the rider tilts the support forward by increasing weight on the front portion of the platform. This causes the vehicle to accelerate. Similarly, to slow or stop the vehicle, or to make it roll backward in some embodiments, the rider tilts the support backward by increasing weight on the rear portion of the platform. This causes the vehicle to slow down, stop, or in some embodiments, accelerate in the reverse direction.

## KAMEN

Kamen shows a balancing motorized vehicle which is unstable and would normally fall over in the absence of motorized power to its wheels. In the preferred embodiment, the device has two laterally disposed wheels, a platform for the rider to stand upon, and a handlebar which the rider holds onto to control the vehicle. The vehicle is steered by differential operation of the wheels. This can be controlled by a thumbwheel mounted on the handle bar.

Kamen utilizes a verticality monitoring system and control loop which detects when the vehicle tips forward or backward and adjusts the vehicle's rolling speed to prevent the vehicle from tipping over. The rider controls rolling speed by leaning forward or backward, effectively tipping the entire vehicle in the desired rolling direction. When the vehicle tips forward, for example, the control loop causes the motor to accelerate in the forward direction. This acceleration works to prevent the vehicle from falling forward while also increasing the vehicle's forward speed. Similarly, tipping the vehicle backward causes the device to slow down, stop, or accelerate in the reverse direction.

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## APPLICANT'S VEHICLE IS GENERALLY DIFFERENT FROM KAMEN'S

Applicant's vehicle is generally different from Kamen's for the following reasons:

1. Applicant's vehicle has at least three wheels which are arranged so that it is always stably supported upon the riding surface. In the preferred embodiment, Kamen's device has only two wheels and is not stably supported in the forward and backward direction.
2. Applicant's vehicle has a rider support that tilts independently in the forward and backward direction to control speed. The speed of Kamen's device is controlled by the forward and backward tilting of the entire vehicle.
3. The forward and backward tilting rider support of applicant's vehicle only needs to actuate an inexpensive potentiometer to control the vehicle's rolling speed. In contrast, Kamen's device requires a complex verticality monitoring system and control loop which detects when the vehicle tips forward or backward and adjusts rolling speed to prevent the vehicle from tipping over.
4. In the preferred embodiment, applicant's vehicle can be ridden hands-free, whereas Kamen's preferred embodiment utilizes a handlebar which the rider holds onto to control the vehicle.
5. In the preferred embodiment, applicant's vehicle can be ridden, at the rider's choosing, in a standing, sitting, or kneeling riding position. Kamen's device can only be ridden in the standing riding position.
6. In one embodiment, applicant's vehicle provides a seat for the rider to sit in whereas none of Kamen's embodiments provide for seated operation.

## APPLICANT'S NEW INDEPENDENT CLAIMS DEFINE NOVEL STRUCTURE OVER KAMEN UNDER § 102

Applicant's new independent claims define novel structure over Kamen under § 102 for the following reasons:

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**1. APPLICANT'S INDEPENDENT CLAIMS RECITE A VEHICLE WHICH IS STABLY SUPPORTED BY AT LEAST THREE WHEELS**

Applicant's independent claims 29, 37 and 41 recite a vehicle which is stably supported by at least three wheels. Kamen's has only two wheels and therefore lacks the ability to remain upright in the absence of motor power to its wheels.

Specifically, Applicant's claim 29 recites:

*"at least three wheels mounted below said rider support for carrying said rider support and for enabling said vehicle to roll when placed upon a riding surface, at least three of said wheels being spaced to stably support said vehicle and normally prevent said vehicle from tipping when placed upon said riding surface,"*

In contrast to applicant's stably supported vehicle, Kamen shows a "balancing device" (page 1, paragraph 6) which is "unstable with respect to tipping when the motorized drive arrangement is not powered" (Kamen Abstract).

Although Kamen states: "Different numbers of wheels or other ground contacting members may advantageously be used" (page 3, paragraph 39), he does not discuss or show any vehicle with three wheels which stably support the vehicle when placed on a riding surface and during rolling, as applicant's claims recite.

Since Applicant's independent claims 29, 37, and 41 recite a vehicle with at least three wheels which are spaced so that the vehicle will not tip over while at rest and during operation these claims define structure that is novel under § 102 over Kamen.

**2. APPLICANT'S INDEPENDENT CLAIMS RECITE A "SPEED CONTROL COUPLING" AND AN INDEPENDENTLY TILTING RIDER SUPPORT**

Claims 29 and 37 now expressly recite a "speed control coupling". A similar "speed control attaching means" is recited in independent claim 41. Kamen has no equivalent of such a coupling or attaching means.

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The "*speed control coupling*" of applicant's vehicle attaches the rider support to the lower components of the vehicle and also enables the rider support to tilt independently of these lower components. This independent tilting occurs in a front-to-back direction and is the motion the rider uses to control the vehicle's rolling speed.

Claim 29 recites:

*"a speed control coupling attaching said rider support to lower components of said vehicle and arranged to enable said rider support to tilt relative to said lower components, such tilting occurring in a generally forward or backward direction,"*

Kamen's device lacks this "speed control coupling" because it is a balancing vehicle, the rolling speed of which is controlled by the front-to-back tilting of the entire vehicle. Kamen's vehicle requires a complex monitoring and control system to detect when the vehicle tips forward or backward and adjust the vehicle's rolling speed to prevent the vehicle from tipping over. In contrast, controlling the rolling speed of applicant's vehicle only requires an inexpensive potentiometer wired into a motor speed controller and actuated by the front-to-back tilting motion of the rider support. Although Kamen makes brief mention of a "*forceplate*" "*to detect leaning of the subject*" (page 5, par. 61), he does not indicate how this "*forceplate*" would be functionally deployed.

Applicant therefore submits that claims 29, 37 and 41 recite further novelty under § 102 over Kamen because Kamen's device has no equivalent of the "*speed control coupling*" or the independently tilting rider support of applicant's vehicle.

### **3. APPLICANT'S INDEPENDENT CLAIMS 29 AND 41 RECITE A RIDER SUPPORT THAT ENABLES HANDS-FREE OPERATION IN MULTIPLE RIDING POSITIONS**

Applicant's independent claims 29 and 41 expressly recite a rider support that enables hands-free operation in the standing, sitting, and kneeling riding positions. This is distinctly different from Kamen's vehicle which must be ridden in the standing position.

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Applicant's Claim 29 recites:

*"said rider support having an upward facing surface of a size and shape predetermined to enable operation of said vehicle by a rider situated upon said rider support in a standing, sitting, or kneeling riding position,"*

*"said upward facing surface being generally free of upwardly extending protrusions which would otherwise substantially inhibit said rider from operating said vehicle in any of said riding positions,"*

Unlike applicant's vehicle, all of Kamen's embodiments exhibit upwardly extending features (Figs. 1, 2, 8-16) that would preclude the sitting, and kneeling riding positions. Most of Kamen's embodiments utilize hand grips and a handle (Fig. 1, elements 14 and 16). As such, these embodiments cannot be ridden hands-free as can applicant's vehicle. Kamen shows a few alternative hands-free embodiments (Figs. 11-13) but provides very little detail about them. In contrast, applicant's independent claims 29 and 41, define a single vehicle which can be, depending on the rider's preference, operated in the standing, sitting, or kneeling riding position.

#### **4. APPLICANT'S INDEPENDENT CLAIM 37 RECITES A RIDER SUPPORT WITH A SEAT**

**Applicant's independent claim 37 recites a rider support with a seat which provides for seated operation of the vehicle. This is distinctly different from Kamen's vehicle which offers no provisions for seated operation.**

Applicant's Claim 37 recites:

*"said rider support having a seat upon which a rider may sit while operating said vehicle,"*

Unlike the vehicle defined in applicant's independent claim 37, none of Kamen's embodiments include a seat for the rider. Thus applicant's independent claim 37 establishes further novelty over Kamen under § 102 because it expressly recites a rider support with a seat.

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For all of the reasons stated above, applicant submits that new claims 29, 30, 37, 38, 41 and 42 now clearly recite novel physical structure over Kamen under § 102. To review the novel features, these claims recite a vehicle with least three wheels which are spaced to stably support the vehicle while at rest and during normal operation. Applicant's claims also recite a "speed control coupling" and an independently tilting rider support to control the vehicle's rolling speed. Claims 29, 30, 41 and 42 further recite a rider support which is structured to enable hands-free operation in the standing, sitting and kneeling riding positions. Finally, claims 37 and 38 recite a rider support with a seat which provides for dedicated operation of applicant's vehicle in the sitting riding position.

## THE NOVEL STRUCTURE OF APPLICANT'S NEW INDEPENDENT CLAIMS 29, 37, AND 41 IS UNOBLVIOUS OVER KAMEN UNDER § 103

The above novel claimed structure is also submitted to be unobvious and hence patentable over Kamen under § 103 for five reasons, which are summarized as follows:

### **1. APPLICANT'S VEHICLE PROVIDES NEW AND UNEXPECTED RESULTS**

- Applicant's vehicle can be easier to ride than a traditional skateboard.
- Applicant's vehicle may be ridden in the sitting and kneeling, as well as the traditional standing riding position. Applicant's vehicle offers an enhanced degree of utility in the alternative sitting and kneeling riding positions.
- Applicant's vehicle provides a riding experience that more closely simulates the feel of ocean surfing than any other wheeled vehicle.

### **2. APPLICANT'S VEHICLE SOLVES A LONG-FELT AND UNSOLVED NEED**

- Applicant's vehicle solves a long-felt need for a skateboard riding interface which is functionally more consistent with related board sports such as ocean surfing and snowboarding.

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**3. APPLICANT'S VEHICLE SUCCESSFULLY ADDRESSES ASSUMED UNWORKABILITY AND ASSUMED INSOLUBILITY**

- o Applicant's invention solves the problem of providing hands-free control for a motorized skateboard. Hands-free control of a motorized skateboard was previously assumed to be unworkable and to present an insoluble problem.

**4. LACK OF IMPLEMENTATION PRIOR TO APPLICANT'S INVENTION**

- o The lack of any commercially available motorized skateboard with a tilting speed control suggests that applicant's invention is unobvious.

**5. COMMERCIAL ACQUIESCENCE TO APPLICANT'S INVENTION**

- o A well-known toy manufacturer has purchased an exclusive option to review applicant's invention.

These five reasons for unobviousness will now be discussed in detail:

**1. UNEXPECTED RESULTS**

*Applicant's Vehicle is Easier to Ride than a Skateboard*

The motorized power system and tilting speed control recited in applicant's independent claims 29, 37, and 41 enable applicant's vehicle to be significantly easier to ride than a traditional skateboard because the rider does not have to push off the ground with one foot to propel the vehicle. Also, because the cited motorized power system regulates rolling speed, applicant's vehicle is less inclined to 'shoot out' from under the rider.

Claim 29 recites a stably supported vehicle with a "speed control coupling" and an independently tilting rider support. The rider support is structured to enable hands-free operation in multiple riding positions. Following are some of the ways these novel features overcome several problems which make the traditional skateboard difficult to ride.

In order to accelerate the traditional skateboard, the rider must simultaneously steer and support their body weight with one foot, and apply a propelling force against the ground with



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the other foot. This combination of actions is intrinsically awkward and discourages many potential riders from attempting skateboarding. However, applicant's claimed tilting speed control allows both of the rider's feet to remain on the rider support even during acceleration. This increases the rider's balance and stability while operating the vehicle.

Another impediment commonly encountered in skateboarding is the tendency of the skateboard to 'shoot out' from under the rider. This occurs because the skateboard's wheels are 'free-wheeling' or, unrestricted from turning. The rolling speed of applicant's vehicle however, is regulated by the motor and power transmission, also recited in applicant's claims. Because applicant's drive wheel is not 'free-wheeling', applicant's vehicle resists the skateboard's tendency to 'shoot out' from under the rider.

These features, which improve the rider's stability and balance, can make applicant's vehicle significantly easier to ride than a conventional skateboard. This is an unexpected result because the traditional skateboard is already difficult to ride. A skilled artisan would naturally assume that the addition of motor power, and the further addition to the rider support of a secondary tilting motion to control speed would make such a vehicle more difficult to ride, not less.

Prototype testing has confirmed the stated unexpected result. Test riders, especially those inexperienced with skateboards, often report greater ease and comfort riding applicant's vehicle than riding a regular skateboard.

Furthermore, although it is primarily discussed in the next section, riding applicant's vehicle in the sitting or kneeling position is even easier than riding it while standing up.

Thus applicant's independent claims 29, 37, and 41 recite novel structure which is also unobvious under § 103 because their novel features provide the unexpected result of a motorized skateboard-like vehicle which can be easier to operate than a traditional skateboard.

### *Applicant's Vehicle Can be Ridden Sitting Down or Kneeling*

**Another unexpected result of the novel tilt-controlled drive system recited in**

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**applicant's independent claims 29 and 41, is that it enables applicant's vehicle to be easily operated in the sitting and kneeling riding positions, as well as the more traditional standing position. It is a further unexpected result that these alternate riding positions are preferred by many riders.**

The traditional skateboard must normally be ridden in the standing position because propelling it requires that the rider balance on one foot and 'push off the ground' with one foot. The claimed motor and power transmission of applicant's vehicle however, eliminates the need to 'push off the ground' to propel the vehicle. This means that applicant's vehicle can be ridden in other riding positions such as sitting or kneeling.

The ability to also be operated in the sitting and kneeling riding position is an unexpected result because a skilled artisan would most likely assume that, as a type of skateboard, applicant's vehicle would be operated in the standing riding position, because this is how skateboards are normally ridden.

Such an artisan however, would be further surprised at the inherent utilitarian value of these non-standing riding positions. It has been applicant's experience in developing this vehicle and presenting prototypes to potential manufacturers that the sitting and kneeling riding positions are very much preferred by a large percentage of test riders. This is especially true for those lacking in previous skateboarding experience. Often those who would normally shy away from traditional skateboards adopt the sitting or kneeling riding positions offered by applicant's vehicle. This is because these non-standing riding positions require less balance and coordination. They make applicant's vehicle even easier to ride and provide something akin to a 'learning' mode of operation.

The utilitarian value of the sitting and kneeling riding positions is an unexpected result because a skilled artisan is likely to view these alternate positions in terms of what is normal for skateboards. Such an artisan would consider them non-essential, secondary modes of operation which are incidental to the assumed primacy of the traditional skateboard's standing rider position.

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Thus these novel features are also unobvious under § 103 because they provide a vehicle which offers the unexpected result of being easily operable in the sitting and kneeling riding positions. Unobviousness under § 103 is further established because these alternative riding positions provide a high enough degree of utility to make them preferred by many riders.

*Applicant's Vehicle Rides Like a Wheeled Surfboard*

**Another unexpected result is that the tilting speed control cited in applicant's claims provides a riding experience that is more like ocean surfing than any other wheeled vehicle.**

The front-to-back tilting motion of the rider support recited in applicant's independent claims is very similar to the motion an ocean surfer uses when riding an ocean wave. When riding an ocean wave, the surfer shifts his body weight forward or backward to speed up or slow down. These small changes in speed help the surfer adjust his position on the front of the moving wave. Applicant's vehicle provides a similar feel because its speed is also controlled by the rider's forward and backward weight shifts.

This is an unexpected result because a skilled artisan would naturally assume that the purpose of applicant's tilting speed control is to provide for hands-free control. The fact that it also makes the vehicle behave more like an ocean surfboard is an added benefit which a skilled artisan would not likely have anticipated.

This similarity to surfing became so apparent during prototype testing of applicant's vehicle that the name "StreetSurfer" was chosen to represent the invention to potential manufacturers.

The tilting speed control of applicant's independent claims 29, 37 and 41 recite novel structure which is also unobvious under § 103 because it provides the unexpected result of a riding experience that is more like ocean surfing than any other wheeled vehicle. Further advantages of this unexpected result are also discussed in the following section.

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## **2. SOLVES A LONG- FELT AND UNSOLVED NEED**

**Applicant's vehicle solves a long-felt and unsolved need, namely, it provides a board sport riding interface that is more consistent with other board sports such as ocean surfing and snowboarding.**

Skateboards have imitated ocean surfboards since their early years of development. It's easy to see why this is true. Ocean surfing is popular but can only be done at a beach, in appropriate weather, and only when the waves are just right. Skateboarding however, can be done almost anytime, anywhere. This helps explain the ubiquity of skateboards in the modern world. Yet it is clear that, given the choice, many who skateboard would prefer to go ocean surfing if it were possible or more convenient. Such people must certainly have experienced a long-felt and unsolved need for a skateboard with features that would allow it to behave more like an ocean surfboard.

The same is true for snowboards. Snowboarding is yet another board sport which utilizes front and back weight changes for speed control. Yet snowboarding is also very much limited by geography and weather. It follows that some skateboarders who prefer snowboarding must have longed for a skateboard that would more closely imitate the feel of a snowboard.

The novel tilting rider support, speed control and motorized drive system recited in applicant's claims help solve this long-felt and unsolved need in the following ways:

1. The motorized drive system recited in applicant's claims eliminates the skateboarder's need to balance on one foot and propel the vehicle by 'pushing off the ground' with the other foot. This enables the rider to keep both feet on the rider support as is the common practice in surfing and snowboarding.
2. Applicant's cited front and back tilting rider support simulates the tilting motion a surfer uses to adjust her position on the front of a moving ocean wave. It also mimics the motion a snowboarder uses to control the speed of his descent down a snow covered slope. This provides another characteristic common to surfing and snowboarding, yet not available to conventional skateboarders.

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The novel features recited in applicant's claims are also unobvious under § 103 because they help solve the long-felt need for a skateboard that rides and feels more like its cousins, the ocean surfboard and the snowboard.

**3. PRIOR TO APPLICANT'S INVENTION, IT WAS ASSUMED THAT PROVIDING A HANDS-FREE SPEED CONTROL FOR A MOTORIZED SKATEBOARD WAS UNWORKABLE AND AN INSOLUBLE PROBLEM**

*Applicant's Vehicle Solves the Problem of Hands-Free Control of a Motorized Skateboard*

Heretofore a skilled artisan would naturally assume that providing a practical hands-free speed control for a motorized skateboard would present an insoluble problem and that utilizing a single tilting rider support to both steer and control the rolling speed of such a vehicle would be unworkable.

The structure recited in applicant's independent claims however, provide just such a tilting rider support and thereby solves this very problem. Claim 29 recites a stably supported vehicle with a rider support that tilts left and right to steer the vehicle and further tilts independently in the forward and backward direction to control rolling speed.

It can be difficult for a rider to balance upon a traditional skateboard. This is partly due to the inherent instability of the rider support resultant from the requirement that it tilt left and right to steer the vehicle. A skilled artisan is likely to assume that further requiring the rider support to tilt forward and backward to control the vehicle's rolling speed would be unworkable because it would make the rider support even more unstable. Balancing with no hand supports, upon a rider support that tilts in one axis to control speed, and in another axis to control steering, would likely appear too precarious for such an artisan to consider workable.

The structure recited in applicant's independent claims 29 and 41 successfully address this assumed unworkability and insolubility by providing a practical hands-free riding interface that utilizes a single tilting rider support to control both rolling speed and steering.

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Assumed unworkability and insolubility is further evidenced by the fact that, even though hands-free operability is a very desirable feature, most commercial motorized skateboards employ hand-held throttles and by definition, cannot be ridden hands-free. If there had been an obvious way to provide hands-free control for these currently available motorized skateboards, their designers would probably not have forgone the many advantages offered by such hands-free operability.

Thus applicant's independent claims 29 and 41 recite novel structure which is also unobvious under § 103 because such structure solves the problem of providing a practical hands-free control interface for a motorized skateboard-like vehicle. Although providing such a control was assumed to be unworkable and to present an insoluble problem, applicant has provided a workable solution.

#### **4. LACK OF IMPLEMENTATION PRIOR TO APPLICANT'S INVENTION**

**Heretofore there has not been any commercially available motorized skateboard with a tilting speed control. This suggests that such a vehicle is unobvious.** Indeed, if such a vehicle were obvious, it's clear appeal and many advantages would most likely have led to its invention by now.

#### **5. COMMERCIAL ACQUIESCENCE – PURCHASE OFFERS**

A well-known Canadian toy manufacturer, Spin Master LTD. of Toronto, Ontario has purchased a 40-day exclusive option for \$6000 to review applicant's invention. This shows serious commercial interest in applicant's vehicle which strongly militates in favor of its unobviousness. Attached as **Exhibit A** is a copy of this contract.

**DEPENDENT CLAIMS 30, 38 AND 42 ARE A FORTIORI PATENTABLE OVER KAMEN**

Dependent claims 30, 38 and 42 incorporate all of the structure of independent claims 29, 37 and 41 and additionally recite means to reverse the rolling direction of applicant's vehicle. Hence applicant submits that these claims are *a fortiori* patentable over Kamen.

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## The Obviousness Rejections Under § 103

Dependent claims 14-18 and 24-28 were rejected under § 103. The subject matter of these claims has been rewritten as new dependent claims 32-36, 39, 40, and 44-48. These new dependent claims are also submitted to be *a fortiori* patentable because their parent claims, as previously shown, are novel and patentable under § 102 and § 103. The specific § 103 rejections will now be discussed.

### THE REJECTION OF CLAIMS 14 AND 24 ON KAMEN IN VIEW OF WHITE SR. UNDER § 103

Dependent claims 14 and 24 were rejected under § 103 as being unpatentable over Kamen in view of White Sr. These claims, which recite a removable handlebar, have been rewritten as new dependent claims 32, 39, and 44.

These claims incorporate all of the structure of independent claims 29, 37, and 41 and add the further novelty of a removable handlebar. Dependent claims 32, 39, and 44 are thus *a fortiori* submitted to be patentable for the same reasons as their independent claims.

### THE REJECTION OF CLAIMS 15 AND 25 ON KAMEN IN VIEW OF FAVORITO ET AL. UNDER § 103

Dependent claims 15 and 25 were rejected under § 103 as being unpatentable over Kamen in view of Favorito et al. These claims recite a foldable handlebar and have been rewritten as new dependent claims 33, 40, and 45.

These claims incorporate all of the structure of independent claims 29, 37, and 41 and add the further novelty of a foldable handlebar. Dependent claims 33, 40, and 45 are thus submitted to be *a fortiori* patentable for the same reasons as their independent claims.

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#### THE REJECTION OF CLAIMS 16 AND 26 ON KAMEN IN VIEW OF MARTIN UNDER § 103

Dependent claims 16 and 26 were rejected under § 103 as being unpatentable over Kamen in view of Martin. These claims have been rewritten as new dependent claims 34, and 46. They recite a steerable truck which articulates along an inclined steering axis. The inclined steering axis enables the truck to steer the vehicle when the rider support is tilted to the left or right. It functions much like the truck of a conventional skateboard.

These claims incorporate all of the structure of independent claims 29 and 41 and add the further novelty of a steerable truck which articulates along an inclined steering axis. Thus dependent claims 34, and 46 are submitted to be *a fortiori* patentable for the same reasons as their independent claims.

#### THE REJECTION OF CLAIMS 17 AND 27 ON KAMEN IN VIEW OF MARTIN AND BUSCAGLIA UNDER § 103

Dependent claims 17 and 27 were rejected under § 103 as being unpatentable over Kamen in view of Martin and Buscaglia. These claims have been rewritten as new dependent claims 35, and 47. They recite a steering linkage which causes a steerable truck to turn left and right in response to the left and right tilting motion of the rider support. This offers yet another method of steering the vehicle in response to the left and right tilting of the rider support.

These claims incorporate all of the structure of independent claims 29 and 41 and add the further novelty of a steering linkage connecting the rider support to a steerable truck. Dependent claims 35, and 47 are also *a fortiori* patentable for the same reasons that their independent claims are patentable.

#### THE REJECTION OF CLAIMS 18 AND 28 ON KAMEN UNDER § 103

Dependent claims 18 and 28 were rejected under § 103 as being unpatentable over Kamen. These claims were rewritten as new dependent claims 36 and 48. They recite biasing springs



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which urge the rider support to return to a neutral tilt position with respect to steering and speed control when the rider is no longer situated on the rider support.

These claims incorporate all of the structure of independent claims 29 and 41 and add the further novelty of a biasing means which causes the rider support to normally return to a neutral tilt position. Dependent claims 36 and 48 are thus submitted to be *a fortiori* patentable for the same reasons as their independent claims.

## Additional Dependent Claims

### TWO NEW DEPENDENT CLAIMS HAVE BEEN INCLUDED

Two new dependent claims 31 and 43 have been included. They recite an electrically responsive pressure sensing element such as one with piezoelectric qualities which is incorporated as part of the speed control coupling and also controls the vehicle's rolling speed in response to very small forward or backward tilts of the rider support.

These new dependent claims incorporate all of the structure of independent claims 29 and 41 and add the further novelty of a speed control coupling which utilizes a pressure sensing element such as a piezoelectric material to control the rolling speed of applicant's vehicle. Dependent claims 31 and 43 are thus submitted to be *a fortiori* patentable for the same reasons as their independent claims.

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## Conclusion

For all of the above reasons, the claims are now submitted to define novel hardware under § 102. Claims 29-48 recite a motorized vehicle with least three wheels which are spaced to stably support the vehicle while at rest and during normal operation. These claims also recite a "speed control coupling" and an independently tilting rider support to control the vehicle's rolling speed. Claims 29, 30, 41 and 42 further recite a rider support which is structured to enable hands-free operation in the standing, sitting and kneeling riding positions. Finally, claims 37 and 38 recite a rider support with a dedicated seat which provides for seated operation of applicant's vehicle.

This novel hardware is submitted to be unobvious and thus patentable under § 103 since it provides the following new results: Applicant's vehicle can be easier to ride than a traditional skateboard, it may be ridden in the sitting and kneeling riding position as well as the standing position, it offers an enhanced degree of utility in these alternative riding positions, and it provides a riding experience that simulates the feel of ocean surfing and snowboarding.

Applicant's cited novel hardware is further submitted to be unobvious under § 103 because it solves a long-felt and unsolved need for a skateboard riding interface which is functionally more consistent with related board sports such as ocean surfing and snowboarding. Applicant's vehicle also successfully solves the previously assumed unworkable and insoluble problem of providing a hands-free control for a motorized skateboard. Applicant's cited novel hardware is further submitted to be unobvious under § 103 by the lack of any commercially available motorized skateboard product with a tilting speed control. Finally, applicant submits that unobvious under § 103 is further evidenced by the fact that a well-known toy manufacturer has purchased an exclusive option to review applicant's invention.

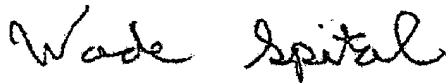
Accordingly, applicant submits that allowance of claims 29 to 48 is warranted and respectfully requests such action.

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**Conditional Request for Constructive Assistance**

Applicant has made a diligent effort to amend the claims of this application so that they define novel structure which is also unobvious. If, for any reason, the Examiner believes that the claims of this application are not yet in full condition for allowance, applicant respectfully requests his constructive assistance and suggestions pursuant to the spirit of MPEP § 2173.02 and § 707.07(j). This will enable the undersigned to place this application in fully allowable condition as soon as possible and without the need for further proceedings. The Examiner is authorized to make any needed minor corrections or changes.

Very respectfully,



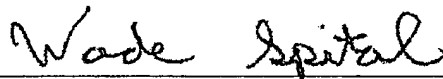
Wade Spital, Applicant Pro Se

Wade Spital  
728 H Street  
Petaluma, CA 94952

Telephone: 707-765-2682

Enclosures: Exhibit A  
Petition to Extend for Two Months and \$225 Fee by CCPF  
Credit Card Payment Form

I certify that on Monday, December 26, 2005 I will fax this Amendment to Art Unit 3618 of the PTO the US Patent and Trademark Office at 571-273-8300.



Wade Spital, Applicant

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Wade Spital

Exhibit A

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### STREET SURFER OPTION AGREEMENT

THIS Option Agreement is made this 29<sup>th</sup> day of April, 2004

BETWEEN:

**WADE SPITAL** (the "Inventor")

OF THE FIRST PART

And

**SPIN MASTER LTD.** ("Spin Master")

OF THE SECOND PART

WHEREAS:

- A. The Inventor has independently conceived, developed and presented to Spin Master a new toy product concept (the Concept") which concept is more fully described on Schedule "A" attached;
- B. Spin Master wishes to evaluate and test the Concept prior to entering into any license agreement with the Inventor;
- C. Inventor is willing to allow Spin Master to spend a finite period of time evaluating and testing the Concept.

NOW THEREFORE in consideration of the sum of Ten Dollars (\$10.00) now paid by each of the parties, the mutual covenants herein contained and for other good and valuable consideration, the parties agree as follows:

1. For the purposes hereof, the following terms will have the following meanings:
  - (a) "Product" means the toy product to be developed from the Concept, including the technology associated with the toy product and any and all enhancements which may be developed from time-to-time, whether or not currently contemplated by the parties;
  - (b) "License Agreement" means a license agreement to be negotiated by the parties governing Spin Master's worldwide right to manufacture, promote and sell the Product which license agreement shall be in Spin Master's standard form subject to such amendments as shall be agreed upon by the parties, acting reasonably; and

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Wade Spital

Exhibit A

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- (c) "Option Period" means the period of time beginning on the date hereof and ending on June 7<sup>th</sup>, 2004;
2. Inventor hereby grants to Spin Master the sole and exclusive right (the "Option"), to be exercised during the Option Period, to negotiate and enter into the License Agreement. If the License Agreement has not been fully negotiated and executed by the parties prior to the expiry of the Option Period, the Option granted herein shall be null and void.
3. During the Option Period:
- (a) Spin Master shall have the right to evaluate, test, develop, explore and consider all aspects of the Concept with a view to determining the potential marketability and profitability of the Product. To this end, Inventor shall supply to Spin Master all such models, drawings, moulds, technology and related materials as Spin Master may require in order to complete its evaluation. Inventor expressly acknowledges that presentation of the Concept and Product to focus groups of children and parents as well as play testing shall form part of Spin Master's evaluation. Inventor agrees that Spin Master shall have the right to discuss the Concept and the Product with various vendors and/or developers provided that Spin Master keeps the Inventor apprised of such discussions and any related correspondence.
- (b) The parties will negotiate the License Agreement in good faith, with appropriate minimum volume guarantees to be reasonably negotiated by the parties.
- (c) Neither party will disclose to any third party any information concerning the Concept or the Product, including, without limitation, any models or diagrams of the Concept or Product, without the express written consent of the other party. The Inventor will use its best efforts to reclaim or cause the destruction of any information, models and diagrams currently in possession of third parties.
4. In consideration of the grant of the Option hereunder, Spin Master shall pay to Inventor the sum of Six Thousand US Dollars (US \$6,000) (the "Option Fee"). The Option Fee shall be split by the Inventor and its third party representative, Go.Products, Inc. The payment will be split 90% to the Inventor and 10% to Go.Products, Inc. Go.Products, Inc., share of the option shall be remitted in care of the Inventor. The Option Fee shall be non-refundable to Spin Master. However, it shall be a term of the License Agreement that the Option Fee shall be

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Wade Spital

Exhibit A

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deducted from any advances or royalties payable pursuant to the License Agreement. The Option shall be due and payable to Inventor within ten (10) days of the date of this agreement.

5. Upon the expiry or earlier termination of this agreement, all models, prototypes, drawings, moulds, technology and related materials previously delivered to Spin Master by Inventor, shall forthwith be returned to Inventor. Provided that, in the event that any models or prototypes are damaged or lost, Spin Master shall reimburse Inventor for the reasonable cost thereof. All contributions, developments and improvements made to the Concept or Product by Spin Master during the term of this agreement shall also become the property of the Inventor upon the expiry or earlier termination of the agreement.
6. This agreement may be terminated by Spin Master at any time upon written notice to Inventor.
7. This agreement may be terminated by Inventor in the event of any breach hereof by Spin Master which breach is not cured within ten (10) days of written notice of such breach.
8. The parties expressly agree that, until a valid and binding License Agreement has been entered into by the parties, Spin Master shall have no right to license the Product from Inventor.
9. Inventor represents and warrants to Spin Master that it holds all rights, title and interest in and to the Concept, that it has the right and authority to enter into this agreement to the best of its knowledge and that its execution of this agreement shall not, in any way, infringe upon the rights of third parties.
10. Any notices required pursuant to this agreement shall be in writing and personally delivered to the parties at the following addresses (or such other addresses as the parties shall advise from time to time):

To Spin Master: 450 Front Street West  
Toronto, Ontario  
M5V 1B6  
Attention: Chris Harris, VP General Counsel

To Inventor: Wade Spital  
728 H Street  
Petaluma, CA  
94952  
Attention: Wade Spital

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Notices shall be deemed to have been received on the date of actual delivery.

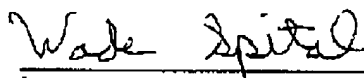
11. This agreement shall be read with all changes of gender and number as may be required by the context. It shall be interpreted in accordance with the laws of the province of Ontario.
12. This agreement shall be binding on the parties and their respective heirs, executors, administrators, successors and assigns.

In witness whereof the parties have signed this agreement.

SPIN MASTER LTD.

Per: 

  
Witness

  
Inventor

*Amendment B*

*Appn. SN 10/765437*

*Wade Spital*

*Exhibit A*

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**Schedule "A"**

**"Street Surfer" – an electric-powered platform that is controlled via the rider's shifting of weight.**